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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/466,545	12/17/1999	DARRYL L. GAMEL	96794DIV3	1308

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MICHAEL C ANTONE
KIRKPATRICK & LOCKHART LLP
1500 OLIVER BUILDING
PITTSBURGH, PA 15222

EXAMINER

TUGBANG, ANTHONY D

ART UNIT	PAPER NUMBER
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3729

DATE MAILED: 06/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/466,545

Applicant(s)

GAMEL ET AL

Examiner

A. Dexter Tugbang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 March 2005.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-7, 9, 54-60, 62-64 and 71-73 is/are pending in the application.
4a) Of the above claim(s) 6, 55-60, 71-73 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☐ Claim(s) _____ is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/15/05 has been entered.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Election/Restrictions

3. Claims 6, 55-60 and 71-73 continue to stand as being withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 20.

Claim Objections

4. Claim 62 is objected to because of the following informalities: the latter phrase of "an alignment-indicating physical shape" (line 6-7) should be replaced with -- the alignment-indicating physical shape --. Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. Claims 3, 5, 7, 54 and 62-64 are rejected under 35 U.S.C. 102(b) as being anticipated by Kawatani 4,733,462.

Regarding Claims 3, 54 and 62, Kawatani discloses a method of placing a component comprising: placing the component 7 into a nest (IC alignment unit 21), the component having leads and an alignment-indicating physically asymmetric fiducial marker (read as bottom surface area of the component 7) *where the physically asymmetric fiducial marker defines, or is, a bottom surface of the component that is asymmetric with a top surface of the component*, and the nest having an asymmetrically shaped recess 22 (in Fig. 1); detecting whether the physically asymmetric fiducial marker on the component mates with the asymmetric shaped recess 22; comparing the alignment of the component (see col. 4, lines 45+); and placing the component on the substrate 1 when mating of the physically asymmetric fiducial marker with the asymmetrically shaped recess is detected (see Figs. 2-4).

Regarding Claims 5 and 7, the positioning pin 13 enables the component to be distinguished when the component is in predetermined alignment and also senses when the component contacts an upper surface of the recess (shown in Fig. 6).

Regarding Claim 63, Kawatani further shows that (in Fig. 6), the top surface of the component 7, extends beyond the upper surface of the recess 22, which is detected.

Regarding Claim 64, Kawatani further teaches that the recess corresponds to a beveled edge (anyone of the leads of the component 7) of the component 7.

Claim Rejections - 35 USC § 103

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kawatani in view of Sakaguchi et al 5,628,110.

Kawatani discloses the claimed manufacturing method as previously discussed, further including determining whether the fiducial marker is mated. Kawatani does not teach the specific steps of directing, receiving and comparing the radiation pattern.

Sakaguchi teaches directing, comparing and receiving a pattern of radiation (shown in Fig. 2) for the purpose of disregarding defective components (see col. 6, lines 13+).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method of Kawatani by including the process steps of Sakaguchi, to positively disregard defective components.

Response to Arguments

7. Applicant's arguments filed in the response on 3/15/05 have been fully considered but they are not persuasive.

In regards to the merits of Kawatani, the applicant(s) continue to assert that Kawatani does not teach placing a component into a nest with the "alignment-indicating physically asymmetric fiducial marker" defining a bottom surface of said component that is asymmetric with respect to a top surface of said component" (lines 3-5 of Claim 3 with similar limitations in each of Claims 54 and 62). The applicant(s) stress that neither the top surface nor the bottom surface of the component 7 can be read as the "alignment-indicating physically asymmetric

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fiducial marker” because of how this phrase is defined in the applicant(s) specification (p. 5, lines 21-29).

The examiner most respectfully disagrees for the following reasons.

First, the examiner wishes to clarify the above rejection in that the claimed “alignment-indicating physically asymmetric fiducial marker” is read as the bottom surface of the component 7 that is aligned and placed into a nest 21. In Kawatani, the examiner notes that the bottom surface of component 7 meets one of the alternative definitions recited by the applicant(s) in their very own specification (at lines 27-29, p. 5). The applicant(s) define “alignment-indicating physically asymmetric fiducial marker” as *geometric shapes or characters that superficially and/or structurally alter the appearance of the component*. The term superficially is defined as trivial or insignificant (Webster’s 2nd edition). The bottom surface of Kawatani’s component 7 is a geometric shape that superficially (i.e. trivially or insignificantly) alters the appearance, or overall shape, of the component 7. With emphasis on the term “superficially”, the bottom surface of Kawatani’s component 7 meets the applicant(s) definition of “alignment-indicating physically asymmetric fiducial marker”.

Second, it appears that the applicant(s) are arguing more specifically than that which is claimed. What the claims recite and what the specification defines are not the same in meaning. Take for example the limitations of “said physically asymmetric fiducial marker defining a bottom surface of said component that is asymmetric with respect to a top surface of said component” (lines 3-5 of Claim 3 with similar limitations in each of Claims 54 and 62). These limitations define the “alignment-indicating physically asymmetric fiducial marker” and the “bottom surface” of the component as one in the same surface, or that the “alignment-indicating

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physically asymmetric fiducial marker” is the “bottom surface of the component” without any distinction from each other. Because the claim limitation can be interpreted in this manner, the examiner notes that the “alignment-indicating physically asymmetric fiducial marker” can be read as the bottom surface of the component.

It appears that in order to avoid Kawatani, the claims would need to be amended in such a way that the “alignment-indicating physically asymmetric fiducial marker” would have to be structurally distinguished from the “bottom surface of the component” as this would agree with the alternative definition in the applicant(s) specification. For example, if the term of “defining” (line 4 of Claim 3 and line 3 of Claim 54) were replaced with the phrase of --is a surface distinguished from--, that this would appear to overcome Kawatani. Additionally, if the phrase of --distinguished from the bottom surface of the component-- were inserted in Claim 62 after “physical shape” (line 7), then Claim 62 would appear to overcome Kawatani.

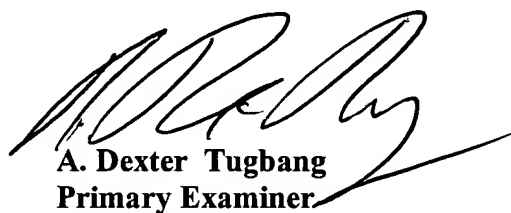
Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to A. Dexter Tugbang whose telephone number is 571-272-4570. The examiner can normally be reached on Monday - Friday 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Peter Vo can be reached on 571-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



A. Dexter Tugbang
Primary Examiner
Art Unit 3729

May 27, 2005